Water-Data Report 2007

08265000 RED RIVER NEAR QUESTA, NM

Upper Rio Grande Basin
Upper Rio Grande Subbasin

LOCATION.--Lat 36°42'11.92", long 105°34'06.35" referenced to North American Datum of 1983, Taos County, NM, Hydrologic Unit 13020101, in Carson National Forest, on left bank 1.3 mi upstream from Cabresto Creek, 1.5 mi east of Questa, and at mile 9.0.

DRAINAGE AREA.--113 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April to October 1910 and January to September 1911 (gage heights and discharge measurements only), October 1912 to March 1924, May 1924 to September 1925, January to March 1926, September 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "Rio Colorado above Questa" 1910-11 and 1926-30, and as "Rio Colorado near Questa" 1912-25, 1930-48.

REVISED RECORDS.--WSP 808: 1935. WSP 1392: 1913, 1932, 1941, 1947-48. WSP 1712: drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Wood or concrete control since Mar. 20, 1936. Datum of gage is 7,451.92 ft above NGVD of 1929. See WSP 1923 for history of changes prior to Oct. 4, 1938.

REMARKS.--Records fair except for those estimated, which are poor. Diversions for irrigation of a few hundred acres upstream from station. Figures of discharge do not include flow in South ditch, which diverts from left bank 1,500 ft upstream and bypasses gage for irrigation and stock water downstream. Jan. 1966 to Dec. 1991, surface- and ground-water diversions by Molybdenum Corp. of America (Molycorp) refinery 5.5 mi upstream bypass gage in tailings pipelines on left bank and discharge into settling pond 3 mi downstream. Effluent from this pond enters Red River as surface water and is included in discharge at Red River below Fish Hatchery, near Questa (station 08266820). Several observations of water temperature were made during the year.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	20	19	e4.0	e11	e12	e12	33	85	126	58	46	36
2	20	18	e4.5	e13	e11	e10	33	100	128	55	43	36
3	20	17	e4.3	e11	e9.0	e10	33	103	129	53	40	37
4	19	21	e4.4	12	e9.5	e12	33	111	127	57	52	35
5	19	22	e5.2	14	e10	e15	37	111	129	60	51	34
6	19	22	e5.5	e12	e10	16	39	99	129	53	45	32
7	23	22	e5.5	e9.0	e10	15	43	87	124	51	42	32
8	31	20	e5.4	11	e9.5	16	45	79	111	48	44	31
9	33	21	e6.7	12	e10	16	45	75	106	47	39	30
10	34	21	e6.9	e12	e9.7	17	47	73	107	46	38	35
11	30	16	e8.4	e13	e7.0	17	40	74	104	50	37	32
12	25	18	e9.8	e13	7.3	17	44	81	117	51	37	32
13	20	17	e11	e14	7.6	18	41	88	124	56	39	31
14	21	19	10	e15	8.2	17	36	107	109	59	39	29
15	25	13	11	e9.0	7.8	18	43	118	101	54	38	28
16	26	15	12	12	10	19	46	123	101	49	39	27
17	24	16	12	13	11	23	43	125	105	48	40	29
18	24	16	e11	e15	12	25	42	122	100	48	37	32
19	23	17	e12	e15	13	27	45	122	94	47	35	30
20	23	18	e12	e16	13	28	46	122	88	51	34	36
21	26	16	e9.0	e17	12	30	49	124	85	47	33	37
22	26	15	e5.5	e16	14	32	50	123	82	44	32	33
23	26	16	e5.0	e14	15	34	50	127	78	42	32	35
24	25	16	4.9	e15	16	34	55	138	78	40	32	37
25	24	16	6.1	e13	15	34	54	127	73	39	31	34
26	22	15	6.9	e12	17	33	53	121	70	39	33	33
27	20	12	8.8	e12	16	36	53	118	67	38	34	32
28	20	12	10	e13	13	38	59	123	69	39	33	32
29	21	e12	10	e12	---	32	67	132	63	41	34	34
30	19	e6.0	9.4	e11	---	30	79	136	60	41	35	36
31	19	---	7.5	e13	---	34	---	131	---	53	35	---
Total	727	504.0	244.7	400.0	315.6	715	1,383	3,405	2,984	1,504	1,179	987
Mean	23.5	16.8	7.89	12.9	11.3	23.1	46.1	110	99.5	48.5	38.0	32.9
Max	34	22	12	17	17	38	79	138	129	60	52	37
Min	19	6.0	4.0	9.0	7.0	10	33	73	60	38	31	27
Ac-ft	1,440	1,000	485	793	626	1,420	2,740	6,750	5,920	2,980	2,340	1,960

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	22.3	16.4	11.4	11.9	12.4	15.6	36.9	114	129	58.6	37.4	27.8
Max	38.1	32.8	25.3	25.2	22.8	40.0	84.1	267	405	172	70.6	62.2
(WY)	(1986)	(1987)	(1994)	(1994)	(1988)	(1989)	(1985)	(1979)	(1979)	(1979)	(1966)	(1991)
Min	7.93	8.09	3.88	3.91	4.81	5.11	9.73	9.63	7.02	8.49	5.63	8.81
(WY)	(1973)	(1977)	(1975)	(1973)	(1977)	(1977)	(1971)	(2002)	(2002)	(2002)	(2002)	(1978)

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1966 - 2007	
Annual total	7,226.7		14,348.3			
Annual mean	19.8		39.3		[a]41.3	
Highest annual mean					87.6	1979
Lowest annual mean					10.2	2002
Highest daily mean	50	May 22	138	May 24	557	Jun 9, 1979
Lowest daily mean	4.0	Dec 1	4.0	Dec 1	2.5	Jan 6, 1971
Annual seven-day minimum	4.8	Dec 1	4.8	Dec 1	3.1	Jan 2, 1973
Maximum peak flow			215	Jul 31	[b]886	May 25, 1942
Maximum peak stage			3.79	Jul 31	5.80	Jun 8, 1979
Instantaneous low flow			3.3	Feb 15	0.60	Jan 21, 1981
Annual runoff (ac-ft)	14,330		28,460		29,890	
10 percent exceeds	31		102		102	
50 percent exceeds	20		32		21	
90 percent exceeds	10		10		8.0	

[a] Average discharge for 52 years (water years 1913-25, 1927-65), 55.9 ft³/s, 40,500 acre-ft/yr, prior to extensive upstream diversions by Molycorp.

[b] From rating curve extended above 450 ft³/s.